

Naval Cost Analysis Division (NCAD)/FMB-6

Automated Information Systems (AIS)/ Command,
Control, Communications, Computers, Intelligence,
Surveillance, and Reconnaissance (C⁴ISR) Branch
(FMB-64)



As of January 2006



Agenda

- **Purpose of Brief**
- **Organization**
- **FMB-64 Overview**
- **Cost Process for Milestone (MS) and Full-Rate Production Decision (FRPD) Reviews**
- **FMB-64 Road Ahead**



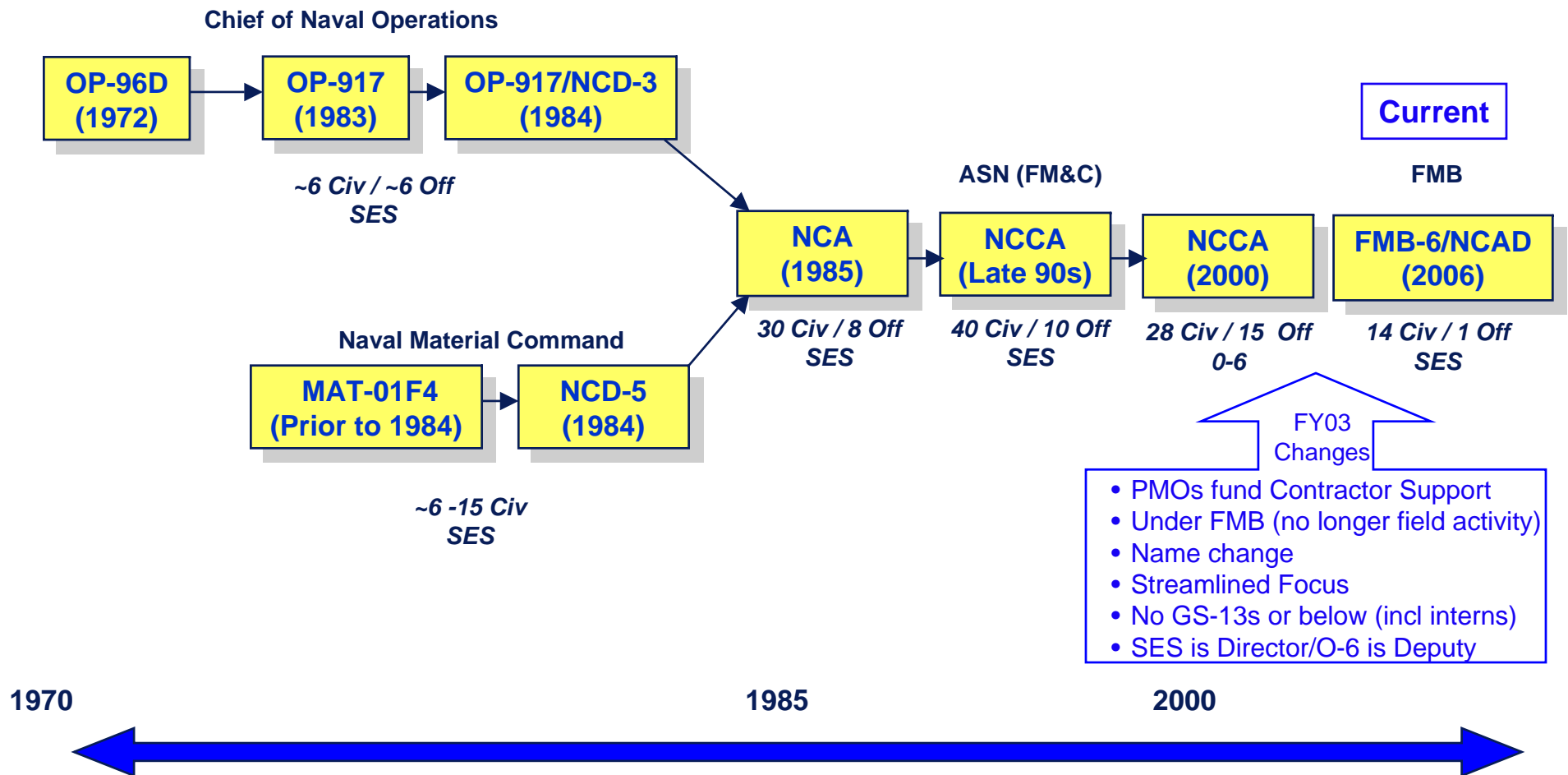
Purpose of Brief

Provide overview of the *personnel, roles, responsibilities, processes, and products* of FMB-64, the AIS/C⁴ISR Branch of NCAD



Organization

Overall NCAD Chronology



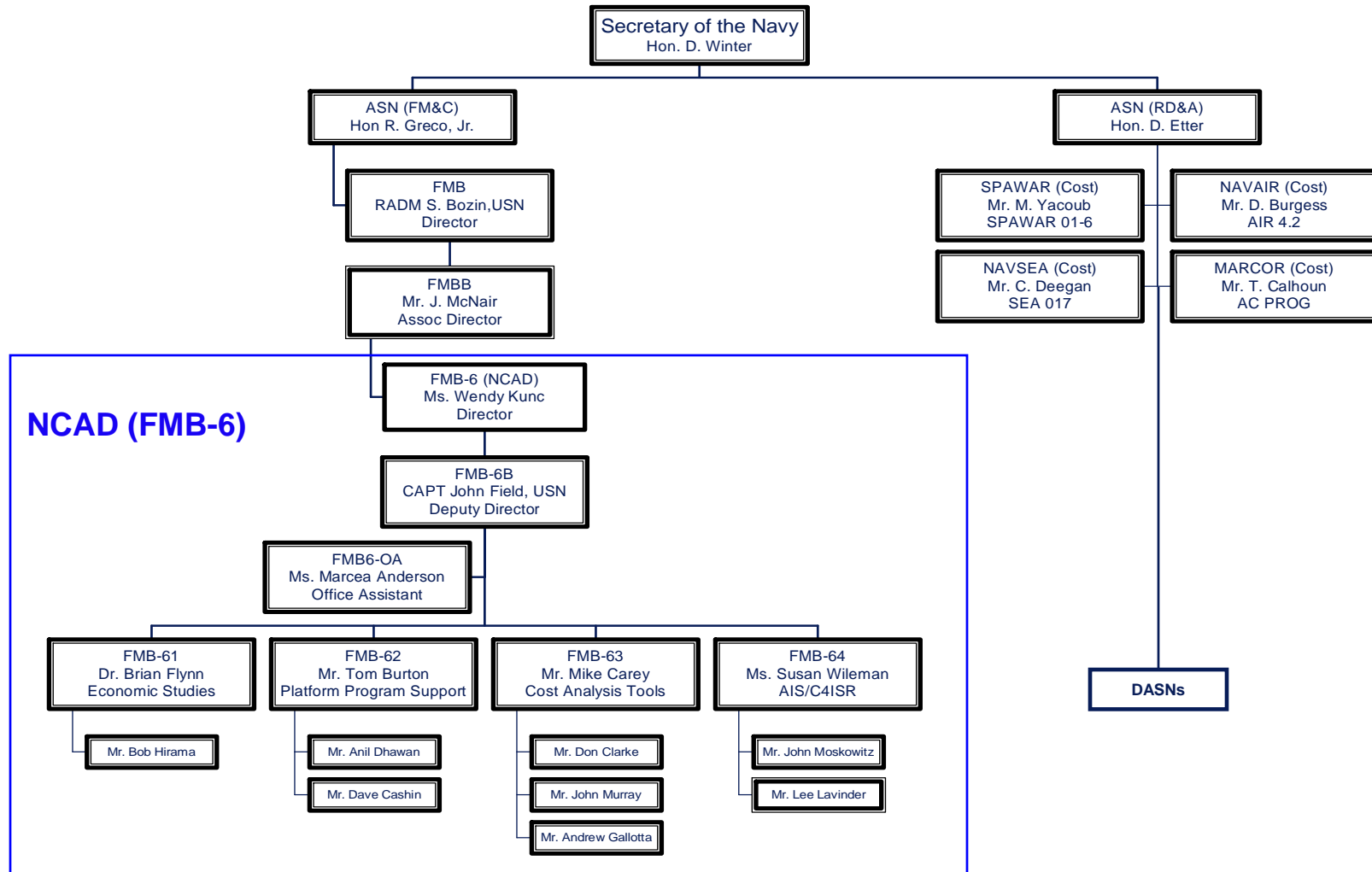
As of January 2006

Unclassified



Organization

Current



As of January 2006

Unclassified



FMB-64 Overview

Resources

- **FMB-64 In-House Personnel:**

- All are 1515 Series - Operations Research Analysts

- **Backgrounds:**

- Education: Engineering, Math, and Operations Research
- Experience: active-duty Navy, shipyard, SYSCOM cost estimating, commercial cost estimating, and OPNAV
- NCAD Lead Analysts can be assigned workload from different branches

- **ALS Contractor Support*:**

- **Government Agencies**

- Naval Surface Warfare Center-Carderock
 - Software (SW) Technology Support Center, USAF
- } Current

- **Federally Funded Research & Development Centers**

- **Private Firms**

* PMO-funded per ASN (FM&C) direction on 23 Dec 2002



FMB-64 Overview

Streamlined Focus

- NCAD Focus: “...performing *Independent Cost Estimates (ICEs)* for *major acquisition programs* for which the *DON Acquisition Executive* is the Milestone Decision Authority (MDA).”*
- Per SECNAVINST 5000.2C:
 - NCAD supports MS and FPRD reviews.
 - NCAD supports ACAT IC and ACAT IA programs.

FMB-64 performs for applicable MS & FRPD Reviews:**

- **Component Cost Analyses (CCAs)*** for DON ACAT IA programs (including DON-lead joint programs)**
- **ICEs for DON ACAT IC C⁴ISR programs**

* Per ASN (FM&C) Direction on 3 April 2003

** Satisfying DoDI 5000.2 ICE/CCA requirements

*** Can be Sufficiency Review (SR) - independent cost analysis of high risk elements



FMB-64 Overview

Other Program Support/Special Studies

- **FMB-64 may also:**

- **Serve on Joint (non-DON led) ACAT IA programs' Cost Integrated Product Teams (CIPTs) *as an advisor* (i.e., no formal cost products)**
- **Conduct ICEs on ACAT II, III, or IV programs only if specifically directed by ASN (FM&C) or requested by ASN (RD&A)**
- **Conduct research, internal studies, and database efforts**
- **Perform other efforts as directed by ASN (FM&C)**



FMB-64 Overview

Philosophy

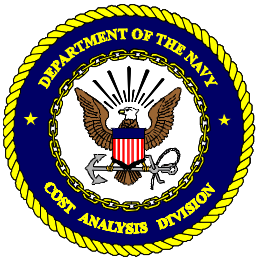
- **Typical program assignment includes:**
 - NCAD Lead Analyst who manages effort
 - Contractor support analysts who conduct hands-on analyses
 - NCAD Branch Head who provides oversight
- **Each NCAD Lead Analyst typically is supporting 2-3 programs simultaneously (includes CIPT memberships).**
- **NCAD analysts execute program estimating efforts as well as research projects (as resources allow).**
- **Emphasis is on continuous training (on-the-job and formal).**
- **Emphasis is on data and tools.**



FMB-64 Overview

Program Acronyms

- **DBSE – Defense Business Sourcing Environment**
- **DJC² – Deployable Joint Command and Control System**
- **GCCS-M – Global Command and Control System – Maritime**
- **GCSS-MC – Global Combat Support System – Marine Corps.**
- **Navy C ERP – Navy Converged Enterprise Resource Planning Program**
- **NCES – Net-Centric Enterprise System**
- **NTCSS – Navy Tactical Command Support System**
- **OOMA – Optimized Operational Maintenance Activity (part of NTCSS)**
- **TC-AIMS – Transportation Coordinators' Automated Info for Movements System**
- **TMIP-M – Theater Medical Information Program – Maritime**



FMB-64 Overview

Current Programs/Special Projects

CCA/SR	
Program	ACAT
DJC ²	IAM
GCCS-M	IAC
GCSS-MC	IAM
Navy C ERP	IAM
OOMA (NTCSS)	IAC

Special Projects
AIS Cost Factors
IT Data Collection
SW Estimating Handbook Update

CIPT Membership	
Program	ACAT
DBSE	IAM
NCES*	IAM
TC-AIMS II	IAM
TMIP-M	Part of IAM

* DON-Unique costs only

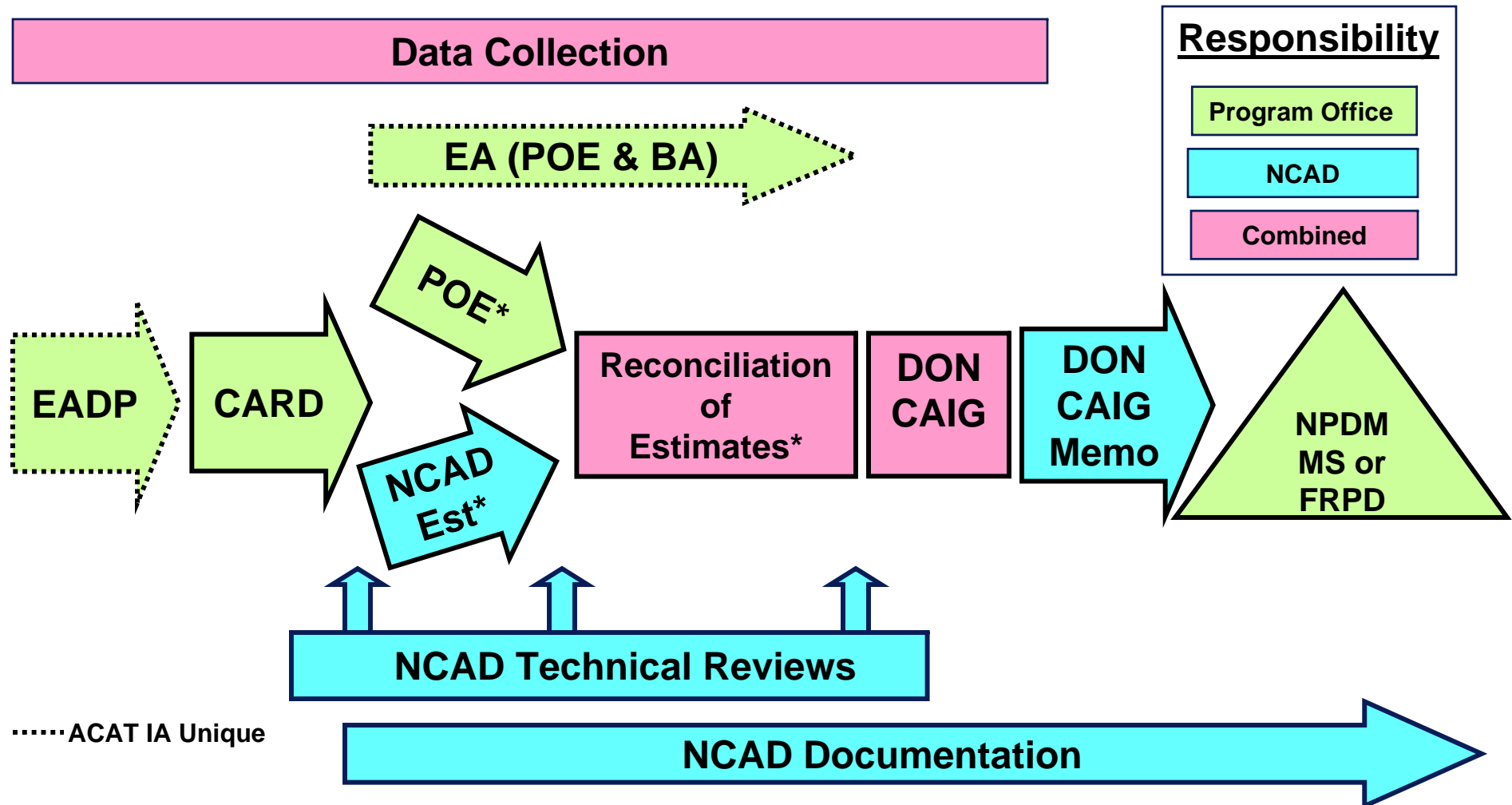


More Acronyms

- **BA – Benefits Analysis**
- **CARD – Cost Analysis Requirements Description**
- **DON CAIG – Department of the Navy Cost Analysis Improvement Group**
- **EADP – Economic Analysis Development Plan**
- **FYDP – Future Years Defense Program**
- **NPDM – Navy Program Decision Meeting**
- **OASD (NII) – Office of the Assistant Secretary of Defense (Networks and Information Integration)**
- **OSD (PA&E) – Office of the Secretary of Defense (Program, Analysis, & Evaluation)**
- **POE – Program Office Estimate**
- **SR – Sufficiency Review**



Cost Process for MS & FRPD Approach



.....ACAT IA Unique

* Initial estimates at beginning of Reconciliation; estimates refined during reconciliation process.

As of January 2006

Unclassified



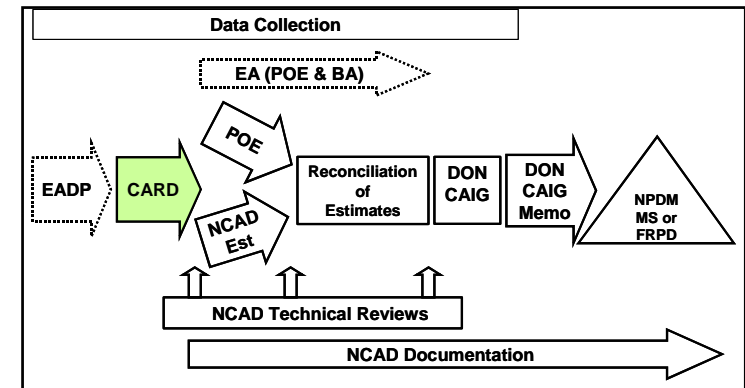
Cost Process for MS & FRPD

Cost Analysis Requirements Description (CARD)

• CARD:

- **Baseline for POE and CCA/ICE**
- **Detailed technical and programmatic description**
- **Typical elements include:**

1. **Sys Overview**
2. **Risk**
3. **Sys Operational Concept**
4. **Quantity Requirements**
5. **Sys Manpower Requirements**
6. **Sys Activity Rates**
7. **Sys MS Schedule**
8. **Acquisition Plan & Strategy**
9. **Sys Development Plan**
10. **Element Facilities Requirements**
11. **Contractor Cost Data Report Plan**

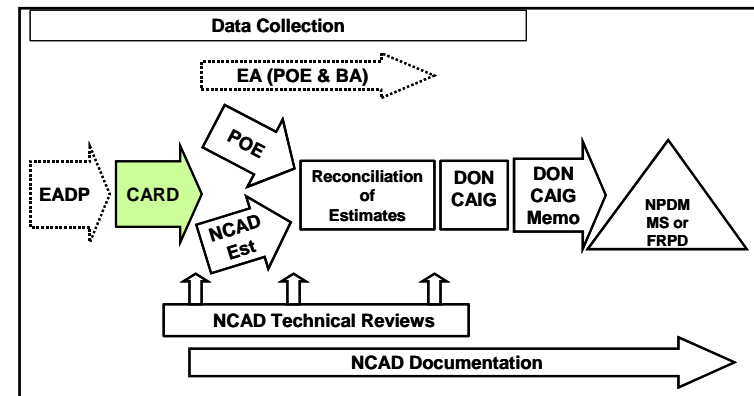




Cost Process for MS & FRPD CARD (cont.)

• CARD:

- Recommend at least one draft (~60%) CARD
- NCAD provides formal comments.
- Final (90-95%) CARD receipt/acceptance by NCAD critical to MS or FRPD schedule
 - NCAD Schedule requires 4 months between Final CARD acceptance and NCAD submission



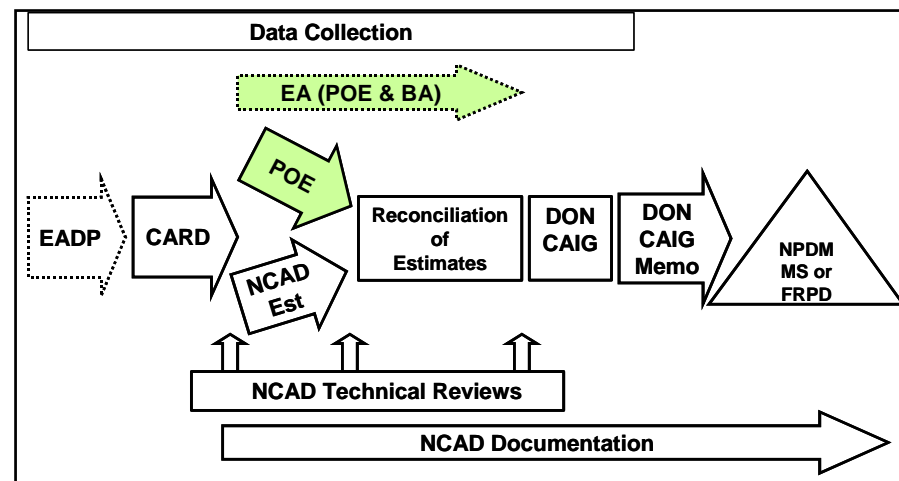
Day-for-Day slip if Final CARD is late or unacceptable



Cost Process for MS & FRPD Economic Analysis (EA)

- **EA includes**

- **Program Office Estimate (POE)**
 - Also called (Program) Life Cycle Cost Estimate
- **Benefits Analysis (BA) (ACAT IA Only)**
 - Includes Return-On-Investment Calculations

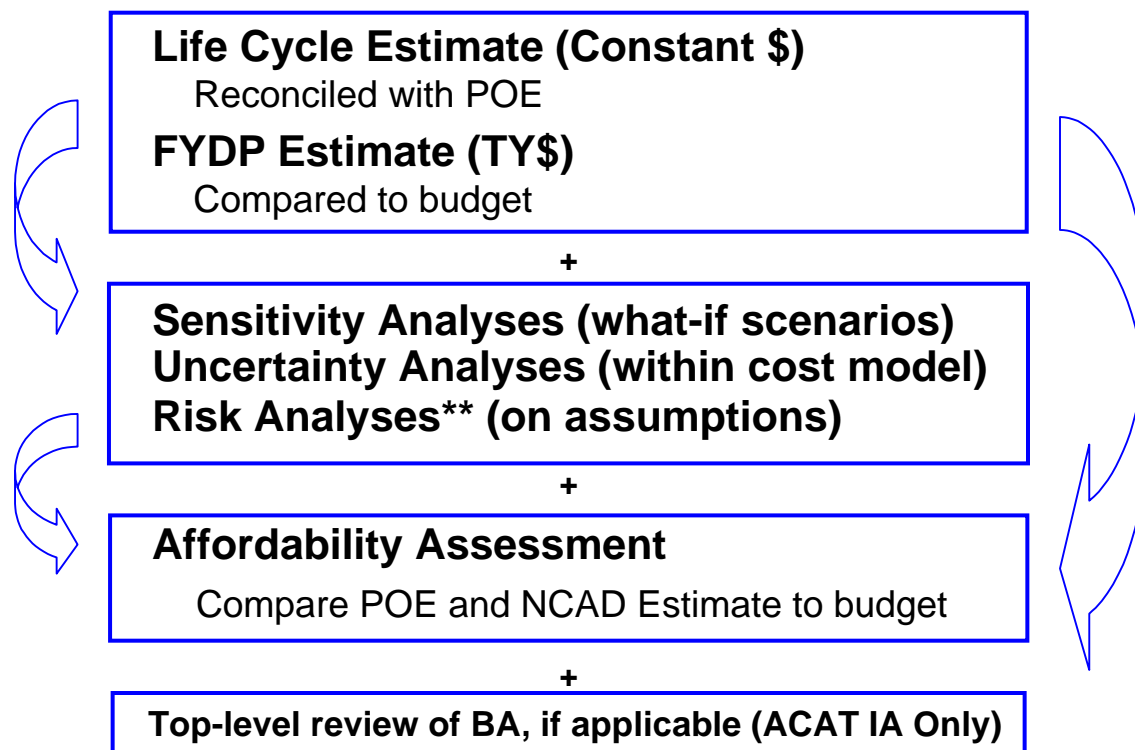




Cost Process for MS & FRPD

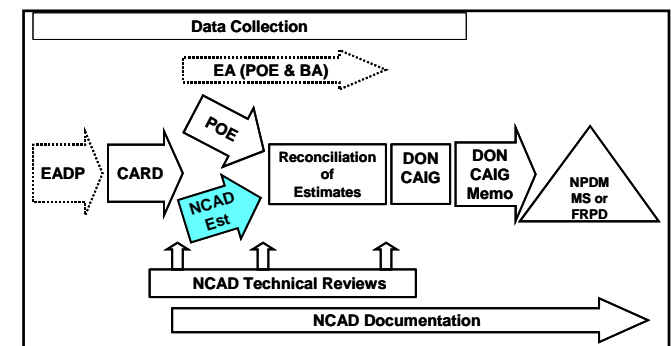
FMB-64 CCA*/ICE

- FMB-64 CCA*/ICE includes:



* Can be SR

** Using Monte Carlo Simulation

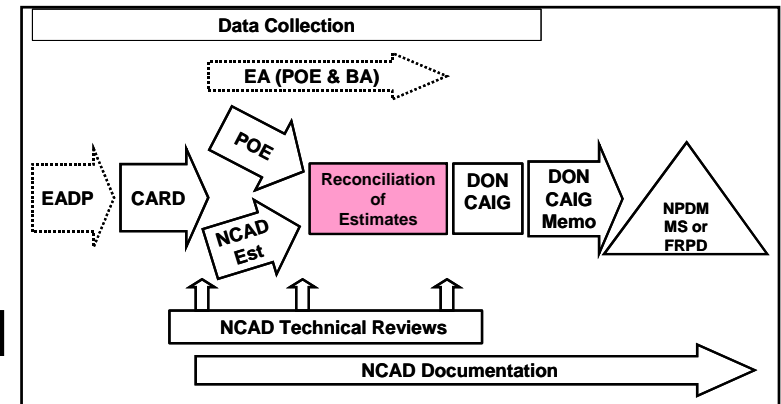




Cost Process for MS & FRPD Reconciliation

- **FMB-64 reviews POE for:**

- **Completeness:** All cost elements addressed regardless of funding source
- **Consistency with CARD**
- **Accuracy of Calculations**
- **Estimating Methodology**
 - Sound approach
 - Detailed and fully documented (source data provided)



- **FMB-64 and PMO Cost Team compare costs and assumptions by element and make adjustments where needed (iterative process)**
- **Process does not result in a Service Cost Position**



Cost Process for MS & FRPD

DON Cost Analysis Improvement Group (CAIG)

- **SECNAVINST 5420.196 establishes DON CAIG:**

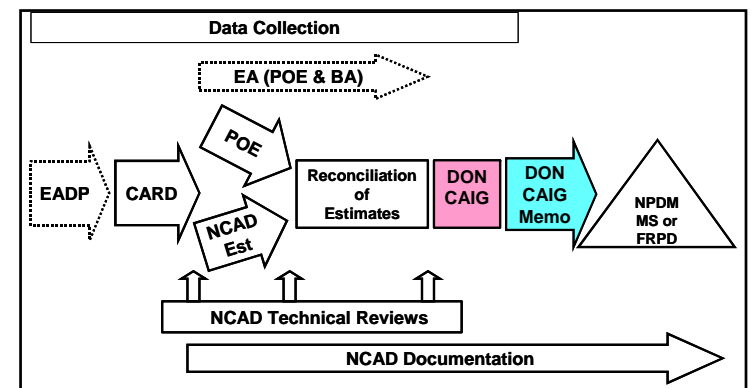
- Reviews life-cycle costs of ACAT IC, IAC, and IAM programs for which DON is responsible.
- Convenes for SR at request of MDA.

- **DON CAIG meeting held to review results and methodologies of POE and CCA/ICE.**

- NCAD Director (or rep) chairs meeting.
- Invitees include PM/PEO, DASN, OPNAV, FMB, etc.
- Attendance of non-government personnel pre-approved by Chair

- **Chair sends DON CAIG memo to MDA and other cognizant organizations at least two weeks prior to MS or FRPD**

- For ACAT IAM programs, 5 working days before NPDM





Cost Process for MS & FRPD FMB-64 Products

Data Request/
Collection

Formal EADP
& CARD
Comments

Cost Estimates
and Analyses

Presentations
for NCAD,
DON CAIG,
etc.

Cover Memo
w/ Supporting
Documentation
(DON CAIG
Memo)

Final
Detailed
Documentation

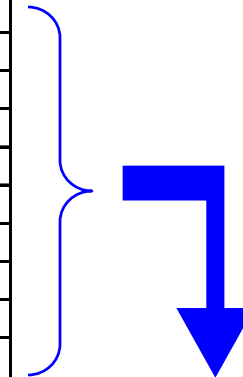


Cost Process for MS & FRPD

FMB-64 Notional Schedule* for ACAT IAM CCA

TASKS	ACTION	# OF WORK DAYS
KICK-OFF MEETING (Technical Briefing, Roles/Responsibilities, Scope & Schedule)	CIPT	
KICK-OFF TECHNICAL REVIEW BOARD (TRB)	NCAD/PMO	
SUBMIT DRAFT CARD & EADP	PMO	20
SUBMIT CARD COMMENTS & DATA REQUEST	NCAD	15
DATA COLLECTION	NCAD / PMO	15
SUBMIT FINAL CARD / DATA SUBMISSION / DRAFT LCCE TEMPLATE	PMO	20
FINAL CARD / DATA SUBMISSION ACCEPTANCE	NCAD	5
DEVELOP CCA	NCAD	30
INITIAL RECONCILIATION	NCAD/PMO	3
UPDATE LCCE/CCA	NCAD/PMO	3
FINAL RECONCILIATION	NCAD/PMO	3
SUBMIT FINAL EA/BUDGET	PMO	3
COMPLETE NCAD PRODUCTS & FINAL ANALYSES **	NCAD	18
PRESENT TO NCAD MANAGEMENT	NCAD	1
BRIEF FMB	NCAD	4
CONDUCT DON CAIG	NCAD	5
SUBMIT ASSESSMENT FOLLOWING FMB-6/FMB APPROVAL ***	NCAD	15
NPDM, OIPT, ITAB, etc.		25

Note: Notional Schedule does not include holidays



Approx. 4 Months
From CARD Acceptance
by NCAD
to NCAD Submit

- * FMB-64 provides program-specific schedule for EADP
- ** Final CCA, briefings, draft DON CAIG memo, etc.
- *** Usually a cover memo with supporting documentation



FMB-64 Road Ahead

- **Continue Use of Contractor Support (PMO-funded)**
- **Conduct Further Research**
- **Enhance Databases**
- **Continue Special Projects**
- **Maintain Close Working Relationships with Customers**

Key: Establish communication at beginning of program MS process and maintain constant exchange throughout process